



# SWARCEr NEWS

August 2010

## SOUTH WAKE MEEING MINUTES

Minutes recorded by Christopher Caudle (KG4WFD)

### Special Points of Interest

- Net nightly at 7:30 on the 145.210 repeater
- Tuesday night traders net at 8:00 PM on the 145.210 repeater
- Next meeting: September 13, 2010 at 7PM FV Presbyterian Church 307 N Ennis Street Fuquay-Varina
- The September premeeting meal will be Pizza.

Due to the fact that the September meeting falls on Labor Day the meetings has been moved to the 13th of September

Jim opened the meeting

Upcoming events...

October 2<sup>nd</sup>: Bass Lake Day

We need ARRL members in the club

We Had 2 new visitors

Secretary read the minutes from last month's meeting

Our current membership is 27 so people need to get their dues in

A motion was made by Jim to use 54 as last year's membership making the PCRN donation \$540

Motion passed

A Motion was made by Jim to donate \$100 to the church

Motion passed

A discussion on what public service means to the club

A discussion on this years swap fest

We need a location and we are going to look into the last weekend of October

Discussion on the club call trustee needs to change

No one volunteered to be a liazon, fundraising chair, web site committee, Education Chair

A Motion was made to reimburse Ryan for domain name registration

Motion passed.

### Special Presentation

JP gave a presentation on QRP

## TREASURE ' S REPORT

Balance as of August 2, 2010                      \$2096.69

## MINUTES OF THE BOARD MEETING

The next Board meeting is set for August 26, 2010 at the regular meeting hall. Question for the Board is why the meetings are not set so that people who work in the evenings can attend.

## PUBLIC SERVICE

Over the past couple of meetings it seems that public service has been a focal point. There is nothing wrong with this except that talk is cheap. What is being done for the public service of the club. I have not heard one mention of public service events at the club meetings or on the nets. Good example of this is that Bass Lake days are coming up October 2nd. What is the club planning for this event? We can not wait until a week before the event to make the club members aware of what is happening. Our public service manager needs to be announcing this event now and asking for volunteers to help with whatever event is planned. Waiting until a week before the event (like has been done in the past) eliminates some from helping because plans have already been made. If our public service manager can not get things organized early enough then I am sorry we need a new public service manager. Now is the time to check with HAM PUBLIC SERVICE as to what is coming up next year and make our plans now not at the last minute. A good example is that on September the 11th and 12th there is the BIKE MS ride then on the 18th and 19th a week later is the Ride Without Limits on the 25th of September is the Step Out for Diabetes. I have heard nothing concerning these events. Our president is big on public service, well MR President please ask your public service manager why the above mentioned events have not even been addressed to the club. If the club is unaware of events or the events are not mentioned until the last minute how can we complain about participation.

## NET WHIP REPORT

For the month of June

75 individuals made 404

For the month of July

80 Individuals made 405 Check-in's

(Editor Note:

The purpose of a net report is to let the club know what type of net activity we are having. (WA2YBM) Jack took the Net Whip job from Mark (NC4MP) because he was going to make sure we got net reports. I have not seen a report that told us how many visitors we have had on the Nets. Who has checked in the most or even mention of the web cast that is done on Friday nights. Jack please let us know what is going on if you took the job to do it right then do it right.)

## MEMBERSHIP REPORT

As of the end of July we only had 27 paid club members. ( I admit that I have not paid my dues yet) This is a far cry from the 54 paid members that we had at the end of June. Come on gang lets get our dues paid.

## CONTRIBUTING EDITOR'S ARTICLE

### Beginners guide to working FM Satellites

One of my most favorite ham radio activities is working satellites. Anybody who has not tried this before is missing out. Satellites have come a long ways in recent years. When I first got my ticket, most of the satellites required SSB gear on HF and 2m. Who has 2m SSB gear?!. Only a few satellites were true FM and most of those were digital modes. I used to work the MIR space station all the time on 2m packet but packet isn't for everybody. Today, there are a handful of true FM satellites that anybody can work with a dual band HT and a directional antenna.

Here is a listing of the FM satellites that I regularly work from my back yard with an HT: **AO-51 (Echo)**, **AO-27 (Eyesat)**, **the ISS**, and **SO-50 (Saudisat)**.

Here is a cliff-notes description of how to work FM satellites:

1) First you need to know when you can work them. FM satellites are "line of sight" which means if they're below the horizon you can't work them. I use two methods for tracking satellites. One is a stand alone program called Orbitron (<http://www.stoff.pl/>) and the other is the N2YO website ([www.n2yo.com](http://www.n2yo.com)). Both of these are pretty easy to use. Orbitron will run offline on a Netbook or laptop which is nice. N2YO will automatically detect your location by IP Geolocation.

2) Next you need a dual band radio that is capable of receiving and transmitting on two different bands. I use my ten year old Icom IC-W32 all the time with no trouble. If you can, set up your radio to step between frequencies at the lowest increment available. On my HT I can go as low as 5khz. The smaller the increment that you use, the more fine grained control you will have to compensate for the Doppler effect shift (read on below...). Also, open up the squelch wide open. Satellites are weak signals that won't break your squelch.

3) Next you need a directional antenna. I use a home made 3 element Yagi made out of a junk tape measure and some plumbing parts. Cost me a few bucks at the local hardware store. Here is a link to the plans: [http://theleggios.net/wb2hol/projects/rdf/tape\\_bm.htm](http://theleggios.net/wb2hol/projects/rdf/tape_bm.htm)

4) Next you need to know about the Doppler effect shift. A real life example of the Doppler effect that everybody has

heard is a passing train blowing its horn. As the train approaches you, the sound of the horn is perceived to be higher in pitch than it really is. At the instant that the train passes you, the horn is perceived as if the train were not moving. As the train continues past you, the sound of the horn is perceived to be lower than it actually is.

RF behaves the same way. As the satellite approaches you, you will find it at a slightly higher frequency on your radio than what is documented. Then as it passes and departs, the satellite will slowly drift lower in frequency until it dips below the horizon and goes out of range.

5) Now the fun part. Let's work your first satellite.

- Document the pass you are going to try to work. In Orbitron or N2YO you will be able to see where on the horizon the satellite will approach (azimuth) and what course it will take across the sky. For example, I just worked AO-51 a few minutes ago on a pass that started to the south and went almost directly overhead to the north. You also need to know what time the pass will start and end.

- Hook up your gear and bring a notepad with you. Even better, bring a pocket recorder or make a video on your cell phone / camera. That way you can replay your contact to make sure you got everything right.

- Now tweak your radio for the Doppler effect shift. You will need to adjust your radio a few khz higher on the input and output frequencies for the satellite. For example, if the satellite output is on 435.300 mhz, I might set my radio for 435.310 for the beginning of the pass and slowly drop the frequency down as the satellite goes overhead.

- Now search the sky with your antenna. You won't find a strong signal unless you are working the ISS. Most satellites put out a few Milliwatts of RF power. The ISS puts out about 10 Watts and can be heard on a rubber duckie antenna! The weak signals will just barely register on your S meter but will be perfectly readable. Point in the general direction of the approach and move your antenna up and down / side to side. Try rotating your antenna from vertical to horizontal orientation to account for polarization changes.

- Did you find the satellite? Good! If not...keep looking. Don't transmit unless you can hear the satellite. You don't want to get lid points do you? :)

- Now track the satellite and listen. You will have to track the satellite across the sky with your antenna and make constant adjustments for polarization as well as Doppler

effect shift. QSO's on the satellites are short and quick, just like Field Day or any other contesting event. Most of the time there will be one or two stations calling for contacts. Throw out your call and your grid square phonetically.

- If you get lucky somebody will come right back to you and give you their exchange.

- Did you make a contact? Awesome! Pretty neat, huh? And very addictive! If not, try again on the next pass and try other satellites. With a little practice you will get the hang of it.

- Sometimes throwing out your call and saying you are on a hand held will help you. Also our location in North Carolina puts you at an advantage. If the satellite is out over the ocean it won't be covering as much populated land but may still cover eastern NC. You can also try traveling to other rare grid squares. Location also helps - find a place with a clear horizon.

Here are some other links that are helpful:

- Amsat Satellite Status Page: <http://www.amsat.org/amsat-new/satellites/status.php>

- AO-51 Page: <http://www.amsat.org/amsat-new/echo/>

- AO-27 Page: <http://www.ao27.org/AO27/index.shtml>

- ISS Fancub: <http://www.issfancub.com/>

- SO-50 Page: <http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=4>

I hope this helps to inspire folks to try some new things! Good luck and have fun!

73,

Glenn N4AZR

Thank you for your input Glenn.

Expense and never once asked for the club to support him in his venture. For over two years he has maintained the web page. Why am I making a big deal out of this? Try going to the web page and finding out about the club. You can not do it. The web page no longer exist. I want to thank the complainers that have forced this to happen. Maybe that means that all those who did not have access to update the web page are going to put up a site and give unlimited access to the club members for editing purposes. I am sure that if they don't do this that then they are going to sit by the computer and update the new web site every twenty minutes or so. I say all of this because that was the problem. Some one could not get some pictures uploaded to the web site so they complained. Some one else did not think the web site was being updated often enough so they complained. Please all of you complainers ask yourself this question. How much did the club pay for the web site? I can see if you are paying for something then you might want to complain but when something is being given to you for free keep your mouth shut or create your own web site and do your own updates and posting. The web site was a source of information for the non club members who heard about us and would check out the web site for information. Now they have no where to go and find out about us. It sure would have been nice if all the whiners and complainers had a plan in place before we lost the web page. I am sure that they have a new server and connection all set and ready to go. They just have to turn the switch. Of course sometimes I think we all forget that this is a hobby and that we do things when we can. That may mean the pictures that were sent to the web master might get posted Saturday instead of Wednesday. Ryan I want to once again thank you for the work and effort that you put forth for the club. I just wish the complainers would hurry up and get the new web page up. I have some pictures that I want to post. I also think it would be nice if it were updated every thirty minutes.

These are my feelings and do not necessarily reflect the views of other members. Please if you have your own view of this matter send it to me I will put it in the news rag so that your ideas can be heard.

Steve  
KA0GMY  
ka0gmy@bellsouth.net

## EDITOR'S COMMENTS

As you have noticed I have voiced my views on several different topics in this newsletter. I now have one more topic I want to discuss. This concerns the club web page or should I say the clubs ex web page. I want to start by thanking Ryan who designed the web page and hosted the web page. Wait let's be honest here from day one of the idea that the club was going to be formed Ryan has been there giving support. He took the money out of his pocket and bought a server in order to host the web site like it needed to be. He registered the domain name at his

## SKYWARN INFORMATION NETS & UPCOMING EVENTS

As posted on <http://www.centralcarolinaskywarn.net/>

Every Tuesday at 9:15PM on the 146.88 repeater



## LINKS OF INTEREST

South Wake ARC Club website: <http://www.southwakearc.com/>

South Wake ARC Yahoo group: <http://groups.yahoo.com/group/southwakearc/>

Piedmont Coastal Repeater Network: <http://pcrn.net/>

Carolina 440 linked system: <http://www.carolina440.net/>

Central Carolina Skywarn: <http://www.centralcarolinaskywarn.net/>

SouthEastern Repeater Association: <http://www.sera.org/>

Wake County CERT: <http://www.wakecountycert.org/>

Wake County ARES/RACES: <http://www.wakeares.org/>

ARRL: <http://www.arrl.org/>

FCC Universal Licensing System: <http://wireless.fcc.gov/uls/index.htm?job=home>

Hamfest calendar: <http://k4hm.net/calendar.php>

NC Canine Emergency Response Team: <http://www.nccert.org/>

## SOUTH WAKE AMATEUR RADIO CLUB

Address	Officers
PO Box 1565 Fuquay-Varina, NC 27526	President: Jim Williams W4VCF Vice President: Jeremy Barnard KG4FYX Secretary: Chris Caudle KG4WFD Treasurer: Christy Fernandini KJ4AEO Membership Director: Ryan Avery NC4RA <a href="mailto:rwavery@charter.net">rwavery@charter.net</a>

## Public Service Through Amateur Radio

South Wake ARC's primary purpose is to further the Amateur Radio Service through programs, activities, and education, in order to promote the radio knowledge, fraternalism and individual operating efficiency of our members. Further, it shall be our purpose to support the welfare of our community through public service including radio communications for emergency situations and public events, and through providing information, training, and assistance to individuals or organizations with an interest in the Amateur Radio Service.